



*This research brief provides a summary of the impacts on household resiliency generated over three years by Malawi's Social Cash Transfer Programme. Results show that beneficiary households increase both overall measures of resilience, as well as have increased ability to positively cope with shocks.*

## THE SOCIAL CASH TRANSFER PROGRAMME

The Government of Malawi's Social Cash Transfer Programme (SCTP) is an unconditional cash transfer programme targeted to ultra-poor, labour-constrained households. The transfer amount varies based on household size and the number of children of primary and secondary-school age living in the household. The impact evaluation for Malawi's SCTP used a mixed methods, longitudinal, experimental study design, combining quantitative surveys, qualitative in-depth interviews, and focus group discussions. The quantitative evaluation consisted of a baseline survey in 2013 with two follow-up surveys in 2014 and 2015 in two Traditional Authorities each in Salima and Mangochi districts.<sup>1</sup>

### *What is resilience and how can the Social Cash Transfer Program affect resiliency?*

Resilience refers to the capacity of a unit (household, individual, community, state) to withstand shocks and stressors to livelihoods, particularly those that threaten food security. A more resilient household is one that is better able to anticipate and manage its exposure to negative livelihood shocks, and when preventive measures fail, can withstand shocks without engaging in negative coping strategies.

By providing a steady and predictable source of income, particularly one that is unconditional, the SCTP can positively impact household income generation capacity, ownership of assets and household human capital such as health and education. These effects, in turn, can result in improved food security, lower exposure to adverse effects of perennial or seasonal shocks, and strengthen a households' ability to respond to negative shocks with positive coping strategies that do not undermine long-term development objectives.

## MEASURING RESILIENCY

The method for estimating the impact of the SCTP on resilience follows the Food and Agriculture Organization's Resilience Index Measurement and Analysis (RIMA) II model.<sup>2</sup> RIMA provides a single composite indicator to summarize the multidimensional aspects of household livelihoods capacities. These multidimensional factors are grouped into four domains or pillars which are described in Table 1, along with the associated indicators for their measurement. Three of these pillars are: 1) ownership of assets (AST), 2) social safety nets (SSN) and 3) household adaptive capacity (AC). The RIMA II framework also includes access to basic services as an additional pillar, however there is limited information in the data to construct this pillar. Importantly, the study is designed so that the treatment and control arms would have similar access to basic services, and thus, while important, is unlikely to affect the ability to detect program impacts. Each pillar is a composite variable determined by a number of household level indicators. The household is considered the unit of analysis because it is the unit of decision making for household production and consumption. As recommended by RIMA, the key outcomes used to estimate the model are per capita food consumption and the Simpson's Dietary Diversity Index.



**Table 1: Resilience Capacity Index Pillars and Indicators**

| Indicators                      |   | Equivalents/Proxy Indicators  |
|---------------------------------|---|---|
| <b>Outcome Indicators</b>       | Average per person daily income, Average per person daily expenditure, Food consumption score/other nutrition proxy, dietary diversity and food frequency score, dietary energy consumption | 1. Per capita food expenditure<br>2. Simpson's Diversity Index  |
| <b>Asset ownership (AST)</b>    | Agricultural assets, Non-Agricultural Assets, Tropical Livestock Units (TLU), Land owned  | 3. 'Wealth' index of agricultural assets, durable goods, housing and household characteristics<br>4. Per capita TLU owned<br>5. Per capita Total Land Cultivated        |
| <b>Social Safety Nets (SSN)</b> | Amount of cash and in-kind assistance, Social Networks, Frequency of assistance, Formal/Informal Transfers  | 6. Value of total in-kind transfers<br>7. Value of free maize received<br>8. Whether household is credit constrained<br>9. Perceived available support in times of need |
| <b>Adaptive capacity (AC)</b>   | Diversity of income sources, Educational level (household average), Employment ratio, Available coping strategies   | 10. Number of income sources<br>11. Dependency ratio<br>12. More than one income source   |

The statistical analysis entails a complex structural equations model where first the individual indicators are combined using factor analysis to create each pillar, and each pillar is in turn used to model the outcomes to derive weights, which summarize the importance of the pillar in predicting the outcomes, and hence in determining a household's resilience capacity. Using these weights and the value of each pillar for each household a Resilience Capacity Index (RCI) is constructed with higher values indicating higher resiliency. This exercise is done separately for baseline (2013) and endline (2015) to assess how the SCTP has affected the RCI of households over time.

## IMPACT RESULTS

Figure 1 shows the estimates of the RCI by treatment status at baseline prior to the start of the SCTP and at endline, after the SCTP had been running for approximately two years.

Among the full sample (Panel A), at baseline both groups of households have a RCI of 41. However, by endline the RCI among treatment households has increased to 58, while that for control households has only increased to 43, an impact of approximately 37 percent from the baseline RCI value. Panel B shows results for households who were in the bottom half of the consumption distribution at baseline—the poorest households. The impacts on resilience are even larger among this group, representing an increase of 52 percent from the baseline value of the RCI.

The structural equation modelling indicates that the AST pillar is particularly important in determining the RCI. There are large and significant effects of the SCTP on almost all components of the AST, including ownership of small tools and other durable assets, and livestock. This appears to be a key pathway through which the SCTP increases resilience among beneficiary households.

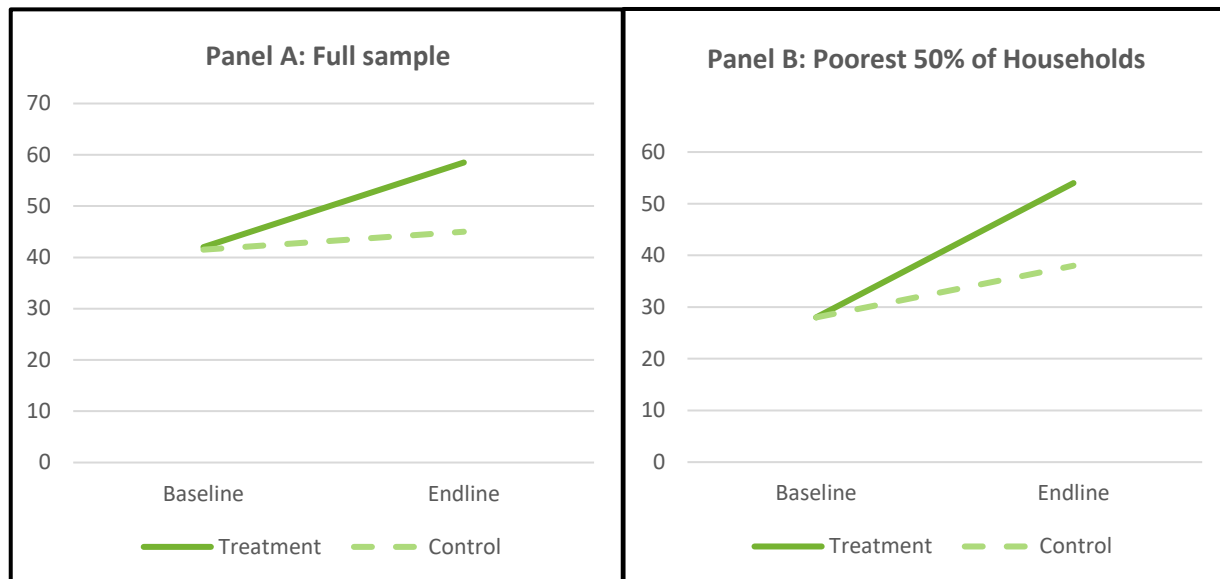
## RESILIENCE AND COPING STRATEGIES

A key idea behind the concept of resilience is that more resilient households are better able to either prevent shocks, or when faced with a shock, respond with positive coping strategies that do not permanently diminish their productive capacity. The SCTP significantly increases the resilience of households. If the RIMA II concept of resilience is valid, we would expect that SCTP households would be more likely to engage in positive coping responses in the face of a negative shock by endline.

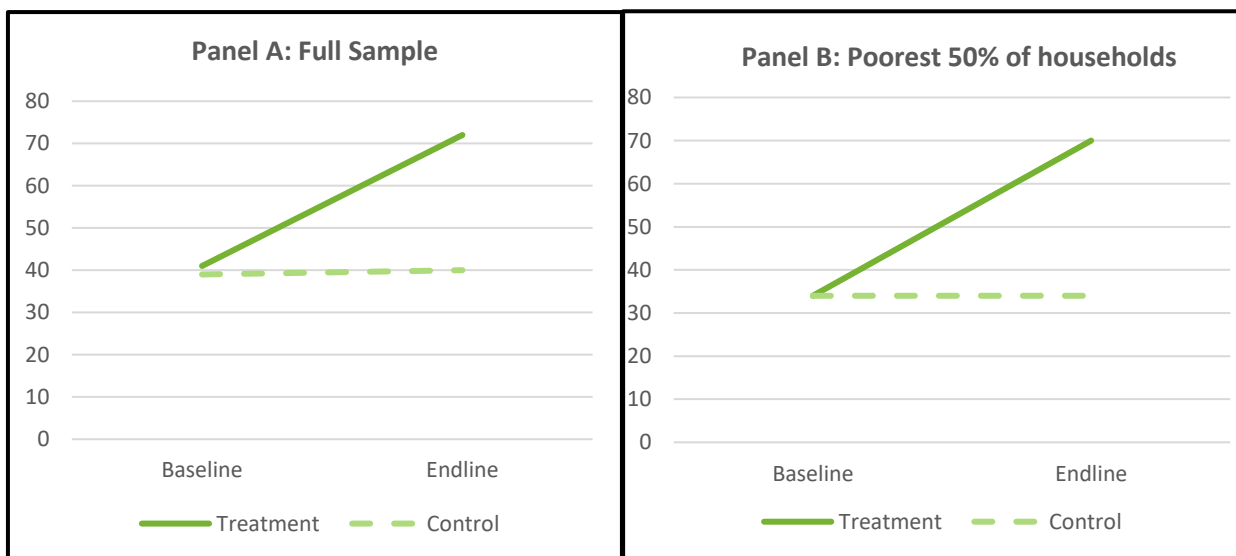
Figure 2 depicts the proportion of households who respond positively to a shock, by treatment status. The shocks measured include both covariate shocks, typically experienced by the entire community (e.g. drought, flood), as well as idiosyncratic shocks, typically experienced at the household level (e.g. theft, illness, death of an income earner). Negative coping strategies include responses like reducing consumption or sending children to work, while positive coping strategies include responses like accepting help from social networks and relying on own savings. At baseline both treatment and control households have a positive response at approximately 40 percent (Panel A). However, at endline the positive response rate is 72 percent among SCTP beneficiaries compared to no change among control households, a change of 65 percent over the baseline mean. This impact is even larger among the poorest 50% of households (Panel B), as they start from a lower base. Hence the estimated increase in the RCI as a result of the SCTP translates into actual improved behavioral responses on the part of beneficiary households.



**Figure 1: Resilience Capacity Index by Treatment Status over Time**



**Figure 2: Share of Households with Positive Coping Strategies by Treatment Status over Time**





## CONCLUSIONS AND POLICY IMPLICATIONS

There is increasing interest in understanding how social protection can increase resilience of households, and how safety nets can be made 'shock-sensitive' or 'shock-responsive.'<sup>3</sup> Although the SCTP was not designed with specific resilience objectives, the program had an impact on overall measures of resilience, as well as on households' ability to positively cope with shocks. Taken together with the overall impacts of the program on poverty, consumption, education and health, these findings indicate broad and robust achievement of the program in improving the well-being of the poorest and most vulnerable segment of the population.<sup>4</sup>

While this evidence is highly positive and promising, more can be done to improve the shock-sensitivity of the program. In particular, recent analysis highlights the need to increase regular transfer size to keep pace with inflation, as well as mitigate against seasonal fluctuations, which increasingly affect poor households due to high food prices, droughts and floods.<sup>5</sup> This evaluation validates the resilience index in the context of a social protection scheme and provides an opportunity for future expansion to further investigate design and policy implications of programming for increasing resilience and coping with shocks.

This brief represents the work of the Malawi Cash Transfer Evaluation Team, which include individuals from the University of North Carolina, Centre for Social Research (University of Malawi) and the UNICEF Office of Research—Innocenti, as well as UNICEF Malawi. Appreciation goes to the Government of Malawi, European Union, the German Government through KfW, Irish Aid, FAO, the International Initiative for Impact Evaluation (3ie) and UNICEF Malawi for their financial contributions and stakeholder support for the study.

For the full research team, further discussion of results and other details, please see: University of North Carolina (UNC) (2016). Impact of the Malawi Social Cash Transfer Programme on Household Resiliency. Chapel Hill, NC: <https://transfer.cpc.unc.edu/wp-content/uploads/2015/09/Malawi-Endline-Resilience-Aug-2016.pdf>

The Transfer Project is a multi-organizational initiative of UNICEF, the Food and Agriculture Organization of the United Nations (FAO), Save the Children UK and the University of North Carolina at Chapel Hill in collaboration with national governments, and other national and international researchers.

1. For full description of the evaluation study and program components see: University of North Carolina (UNC). 2016. Malawi Social Cash Transfer Programme Endline Impact Evaluation Report. Chapel Hill, NC: [https://transfer.cpc.unc.edu/wp-content/uploads/2015/09/Malawi-SCTP-Endline-Report\\_Final.pdf](https://transfer.cpc.unc.edu/wp-content/uploads/2015/09/Malawi-SCTP-Endline-Report_Final.pdf)
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